UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

REPLY TO ATTENTION OF:
SR-6J

September 10, 2003

MAJ David Quivey, Project Officer
Department of the Army
Assistant Chief of Staff for Installation Management
600 Army Pentagon
Washington, DC 20310-0600

SUBJECT: Review of *Responses to Comments on the Draft Construction Completion Report for Various Site Remediations for the Fort Dearborn U.S. Army Reserve Center, Chicago, Illinois, July, 2003*

Dear MAJ Quivey:

The United States Environmental Protection Agency Region 5 (U.S. EPA) has reviewed the *Responses to Comments on the Draft Construction Completion Report for Various Site Re*mediations at Fort Dearborn U.S. Army Reserve Center, Chicago, Illinois received in our office on July 3, 2003. The responses to comments (RTCs) were also discussed during a base realignment and closure (BCT) meeting held in Chicago, Illinois on July 9,2003. This letter documents our resolution and outstanding issues that were discussed at the July 9 BCT meeting. I have forwarded this comment letter to you electronically to expedite your receipt of it. A signed hard copy will also be mailed to you.

Most of the comments were adequately addressed, with the exception of the following: a third party data validation report, a request for a revised table in the data validation section of the report and request to provide the U.S. EPA Region 5 Manual Integration Policy documentation in Appendix D. Please see the enclosed comments for more detail. If you have any questions, please call me at (312) 886-6150.

Sincerely,
Karen L. Mason-Smith
Karen L. Mason-Smith
Remedial Project Manager

Enclosure
cc: D. Meadors, ACOE-Louisville, KY
Colonel Fougner, Director, Army Reserve Division
J. Vranicar, Field & Golan
M. Chrystof, U.S. EPA
R. Suda, MWH Global
D. Graham, City of Chicago
C. Wilinski, Deputy Commissioner
A. Jankowski, IEPA

REVIEW OF RESPONSES TO
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 5 COMMENTS ON THE
DRAFT CONSTRUCTION COMPLETION REPORT
FOR VARIOUS SITE REMEDIATIONS
FT. DEARBORN, IL

U.S. EPA Comments Prepared: June 17, 2003
Army Ft. Dearborn Responses Prepared: July 3, 2003

U.S. EPA has evaluated Fort Dearborn Army Reserve Center's Responses to U.S. EPA Comments (RTC) for the Draft Construction Completion Report for Various Site Remediations, dated April 2003. The original comments, responses and our evaluation of the RTC are discussed below.

SPECIFIC COMMENTS:

1. **Section 1.1 Background, 3rd paragraph, p.2:** Why was the fifth Category 7 site (Indoor Firing Range) not included in this Construction Completion Report (CCR)? The Indoor Firing Range (Site ORD-1) was included in the December 2001 Final Work Plan For Various Site Remediations at Fort Dearborn. Please add a section to the CCR to include any deviations from the work plan and unplanned occurrences

   Response: As stated in Section 2.0 of the Final Work Plan, "This Work Plan addresses the collection of soil samples and/or the removal of equipment associated with four of the five identified Category 7 locations. The fifth area, the firing range, was removed and remediated by Cape Environmental in November 1999. The remaining four sites addressed in this Work Plan include the former vehicle inspection pit (OTH-1), the former shop sink (OTH-2), the former vehicle wash rack (OTH-3), and the oil-water separator (OWS-1). This Work Plan also addresses removal of a 250-gallon aboveground storage tank (AST) located north of the Organizational Maintenance Shop (OMS) Building." Accordingly, the last sentence in Section 1.1 of the Construction Completion Report states "A fifth Category 7 Area, the Indoor Firing Range, was remediated by Cape Environmental, Inc. in November 1999 and is not addressed herein." To provide clarity, the text has been revised to add the statement "Results of the remediation are presented in *Final Closure Report, Industrial Hygiene Surveillance and Air Monitoring Conducted During Range Decommissioning at Fort Dearborn Army Reserve Center, Small Arms Firing Range, Rosemont, Illinois,* dated May 2000." at the end of Section 1.1

   U.S. EPA's Comment on RTC: The Army's response appears adequate. It was agreed by the Army, Illinois Environmental Protection Agency (IEPA) and U.S. EPA that the Army and its consultant (Montgomery Watson Harza) would go back and check the *Final Closure Report, Industrial Hygiene Surveillance...., dated May 2000* and files for any concurrence correspondence from U.S. EPA and IEPA. (**Action Item:** Doug

Meadors (Army) and Bob Suda (Montgomery Watson Harza) agreed to follow-up with this item.)

2. **Section 1.3 Project Scope and Objectives, 3rd paragraph, p.4:** The CCR states that the "scope of work also included removal of an empty unattached 250-gallon above-ground storage tank (AST) that was resting on the ground near the north side of the OMS Building. No further information regarding the disposition of the tank is available."

   Did the Army's contractor perform any sampling near the north side of the OMS Building, or suspect any potential contamination in this area?

   Response: The above ground storage tank was apparently abandoned on the property. Since the tank was empty and there was no evidence of any spills or leaks associated with the tank, no environmental concerns were noted and no environmental sampling was included in the approved work plan. However, to properly dispose of the tank, the scope of the demolition project included provisions for disposal of the tank. To provide clarity, the text has been revised to include the following statement: "No evidence of spills or leaks were observed to be associated with the tank. Therefore, no environmental sampling was required as part of this project."

   U.S. EPA's Comment on RTC: Concur.

3. **Section 3.1.5 Analytical Data Validation, p.15:** Text states that the independent third-party validation (to be done by USACE contractor Lee A. Knupple and Assoc.), on at least 10% of the data, was submitted separately from this document. US-EPA has not received this data validation report as yet. Please be advised that our review of this Construction Completion Report will not be complete without our ability to review the third-party data validation report, and findings.

   Response: The third-party data validation report is pending and will be provided in a separate submission as soon as it is available.

   U.S. EPA's Comment on RTC: Understood. Please provide the 3rd-party data validation report so that U.S. EPA may continue our review process.

4. **Tables Section/all SVOCs:** It was noted that for all the SVOC data tables, significant hits were listed for 2,4,6 Tribromophenol (listed as a surrogate in the SVOC analytical reports provided in Appendix D), but no listing or values for 2,4,6 Trichlorophenol (which was an actual analyte listed in the Appendix D SVOC reports). Is this a typo, or is the surrogate being reported out here?

   Response: The table has been corrected to replace 2,4,6 Tribromophenol with 2,4,6-Trichlorophenol. Other changes made to this table to address errata identified while reviewing this comment are: correct the result for benzo(g,h,i)perylene in sample FIP-003-06-SSS; and correct the reporting limits for 1,2,4-trichlorobenzene,

1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, and hexachlorobutadiene.

U.S. EPA's Comment on RTC: Understood. Please provide the revised table(s) so that U.S. EPA may continue our review process.

5. **Appendix D, Case Narratives, Manual Integration:** It was noted for every case narrative, under PCB Fraction - Method 8082, there were listing of pages where manual integration took place, and the only explanation provided was a statement to "See hard copy for explanations of manual integrations". There were no hard copy provided, nor any explanations of why any of this manual integration took place in this report. Please provide an explanation of what manual integrations took place, why they were necessary, and if it was deemed justified.

Response: The project QAPP specifies that ARDL will follow the procedures outlined USEPA Region V Policy on Manual Integration (USEPA, 2001). The Region V Manual Integration Policy states that it is "limited only to GC/MS methodologies, specifically for Volatiles and Semi-Volatiles analysis." Polychorinated biphenyls are analyzed by Method SW8082, which is a GC method, therefore, manual integration documentation is not required under the Region V Manual Integration Policy. PCB manual integration documentation can be provided upon request.

Benzo(b)fluoranthene (sample VWR-005-02-EBT) and benzo(k)fluoranthene (samples VWR-006-02-EBT, VWR-003-02-ESW, FSS-007-05-EBT, FSS-004-040ESW, and FSS-003-04-ESW) analyzed by GC/MS using Method SW8270C SIM were manually integrated. These compounds were manually integrated due to an incorrect peak selected by the computer. Manual integration documentation for these samples is provided in the revised Appendix D.

U.S. EPA's Comment on RTC: Understood. Although the U.S. EPA Region 5 Manual Integration Policy lists GC/MS methods; both logic and the desire for meaningful project data would encourage data reviewers/validators to be vigilant to ensure the proper use of manual integration at any time or for any method in which it is being utilized. Please provide the documentation in Appendix D (as mentioned), and include feedback as to the reasons for, necessity of and proper performance of manual integrations for all methodologies for which it is performed.

6. **Appendix D, Lab Report 301101:** The sample VWR-008-02-EBT appears on the chain of custody forms, and has analytical data output forms for VOCs, SVOCs, PCBs, PAHs, Glycol, and Inorganics. However, there is no listing of this data in the Tables section of this report, nor a mention in either the text of the report, or indication on the sampling Figure 4 (Former Vehicle Wash Rack) area, as to where this sample was taken or what impact (if any) this data had. Please explain.

Response: Sample VWR-008-02-EBT is a field duplicate of sample VWR-006-02-

EBT. Section 2.15 has been added to the Data Validation Report to discuss quality control (QC) sample results. The results have no impact on the findings presented in the Construction Completion Report.

U.S. EPA's Comment on RTC: Understood. No further response is needed.

7. **Appendix D, Lab Report 301104:** The sample OWS-005-08-EBT appears to have been run three times for VOCs (there are three separate VOC data sheets, numbered ARDL lab no.301104-01, 301104-01MS, and 301104-MD). The Tables section of the report, shows only the data for one of the samples, not the MS/MD pair. Are the hits for 1,1 dichloroethene, benzene, trichloroethene, toluene, and chlorobenzene shown in the MS and MD samples due only to the matrix spike?

Response: An MS/MSD was conducted on sample OWS-005-08-EBT, which was non-detect for all target VOC analytes. The MS/MSD spike included 1,1-dichloroethene, benzene, trichloroethene, toluene, and chlorobenzene. The detections of these compounds in the MS and MSD samples were due to the spike. To avoid confusion potentially arising from this, the MS and MSD results have been removed from the revised Appendix D.

U.S. EPA's Comment on RTC: Understood. No further response is needed.

8. **Appendix E, Data Validation Report:** In Section 2.13 Manual Integration, text states that the laboratory case narratives did not provide any documentation of manual integration for GC or GC/MS analysis. The raw data for only two SDGs were reviewed for evidence of manual integration. There is little or no indication from this Validation Report of why the manual integrations were done, if the manual integrations were done properly, or if they were even necessary. Furthermore, this level of review does not satisfy the requirements of the Region V Manual Integration Policy, as the text infers in the Summary Section 3.0 of this Data Validation Report. The validation did not even satisfy the requirements of the Final Project QAPP (see Final Project QAPP, , June 2002, Section 6.2.5 Manual Integration, p.32 -34). All manually integrated data (100%) must be validated by an independent third party validator. US-EPA has not yet seen the third party validation report, nor any indication that 100% of the manually integrated data has, or ever will be, validated.

Response: The text in Section 2.13 was incorrect. The case narratives included in Appendix D list all instances of manual integration. All GC/MS manual integration documentation is provided in the revised Appendix D. For clarity and correctness, Section 2.13 has been revised to state:

> ***"Manual integration of analytical data produced by GC or GC/MS is defined as replacing the automatically generated output of the data handling system of an analytical instrument with an analyst-generated estimation of the area under the peak.***

The laboratory case narratives listed all instances of manual integration. All GC/MS manual integrations were clearly identified on the raw data quantitation reports with an "M" flag and the before and after chromatograms that were signed and dated by the analyst were provided.

Polychlorinated biphenyls analyzed by SW8082, a GC method, required had manual integrations due to excess area under the peaks. Benzo(b)fluoranthene (sample VWR-005-02-EBT) and benzo(k)fluoranthene (samples VWR-006-02-EBT, VWR-003-02-ESW, FSS-007-05-EBT, FSS-004-04-ESW, and FSS-003-04-ESW) analyzed by GC/MS using SW8270C SIM were manually integrated due to incorrect peaks integrated by the computer. Manual integration documentation for benzo(b)fluoroanthene and benzo(k)fluoroanthene is provided in Attachment 1."

The third-party data validation report is pending and will be provided in a separate submission as soon as it is available.

U.S. EPA's Comment on RTC: Understood. Please provide the revisions and 3rd-party data validation report so that U.S. EPA may continue our review process.